

Monoclonal Anti-Human Heparanase 1 (HPA1) Antibody Clone HP130

Catalog Number: *INS-26-1-0000-21 (850 µg)*

BACKGROUND

Heparanase is an endo-β-D-glucuronidase, which degrades heparan sulfate side chains of heparan sulfate proteoglycans (HSPGs) in the extracellular matrix. Heparanase plays an important role in ECM degradation, facilitating the migration and extravasation of tumor cells and inflammatory leukocytes (1,2,3). Upon degradation, Heparanase releases growth factors and cytokines that stimulate cell proliferation and chemotaxis (4,5).

Heparanase is a heterodimer comprised of a 50 kDa subunit harboring the active site and an 8 kDa subunit. It is produced as a latent 65 kDa precursor and proteolytically processed to its active form (1,6).

Heparanase is highly expressed in myeloid leukocytes (i.e. neutrophils) in platelets and in human placenta. Human Heparanase was found to be upregulated in various types of primary tumors, correlating in some cases with increased tumor invasiveness and vascularity and with poor prospective survival (7,8).

SOURCE

Mab HP130 is a Protein G affinity purified monoclonal antibody raised against the 65 kDa Heparanase precursor. It recognizes the C-terminal region of both the latent pro-Heparanase and the active heterodimeric enzyme.

Ig CLASS

Mouse IgG_{1κ}

PRODUCT

Each vial contains 850 µg of Mab HP130 in 500 µl of 0.22 micron filtered solution of 20 mM Sodium Phosphate; 150 mM NaCl; pH 7.2, containing 0.01% Thimerosal.

APPLICATIONS

Mab HP130 was shown to be active in:

- FACS and Immunofluorescence analysis (9,10)
- Immunohistochemistry (IHC) (11,12,13,14,15,16, 20)
- Western blot (7,11,12,17,19,21)
- Immunoprecipitation (IP) (18)

SPECIFICITY

In immunoblot analysis Mab HP130 reacts with the 50 kDa subunit and with the 65 kDa precursor of human Heparanase.

Western blot analysis: recommended dilution range 1:200 (8.5 µg/ml).

IHC: recommended dilution range: 1:20 (85 µg/ml).

The antibodies cross react with the chicken Heparanase.

PURITY

>95% on SDS-PAGE.

STORAGE

Store at 4°C. Stable for six months from the date of shipment. For extended storage, freeze in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

RESEARCH USE

For *in vitro* research use only. Not for use in diagnostic procedures.

PATENTS

Anti-Heparanase antibodies and their uses, including Mab HP130 and its uses, are protected by US. Patents No. 6,177,545; 6,531,129, additional US patent applications and patents and patent applications worldwide.

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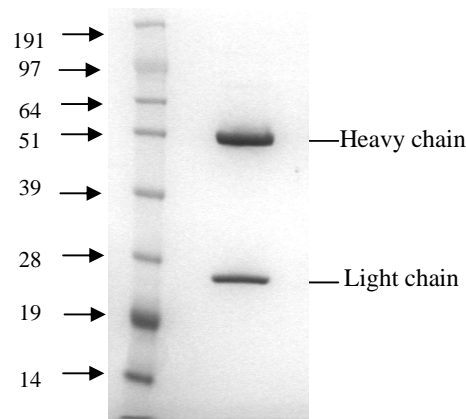
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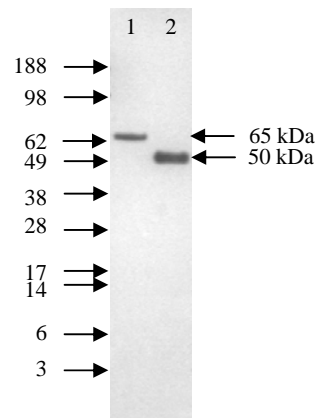
PERFORMANCE

A. Reduced LDS-PAGE of Mab HP130



Monoclonal anti-human Heparanase-1 (HPA1) antibody clone HP130 (4 µg) was separated on a 12% bis-Tris SDS-polyacrylamide gel electrophoresis (NuPage, Invitrogen) followed by GelCode Blue® (Pierce) staining. Sample was prepared with DTT (reducing conditions). Arrows indicate the position of heavy and light chain bands.

B. Immunoblot analysis using Mab HP130



Purified 65 kDa precursor Heparanase (50 ng; lane 1) and purified 50 kDa Heparanase subunit (50 ng; lane 2) were loaded onto 4-12% SDS-PAGE. The proteins were transferred to PVDF membrane and subjected to Western blot analysis using HP130. The 65 kDa precursor and the 50 kDa subunits are clearly detected.